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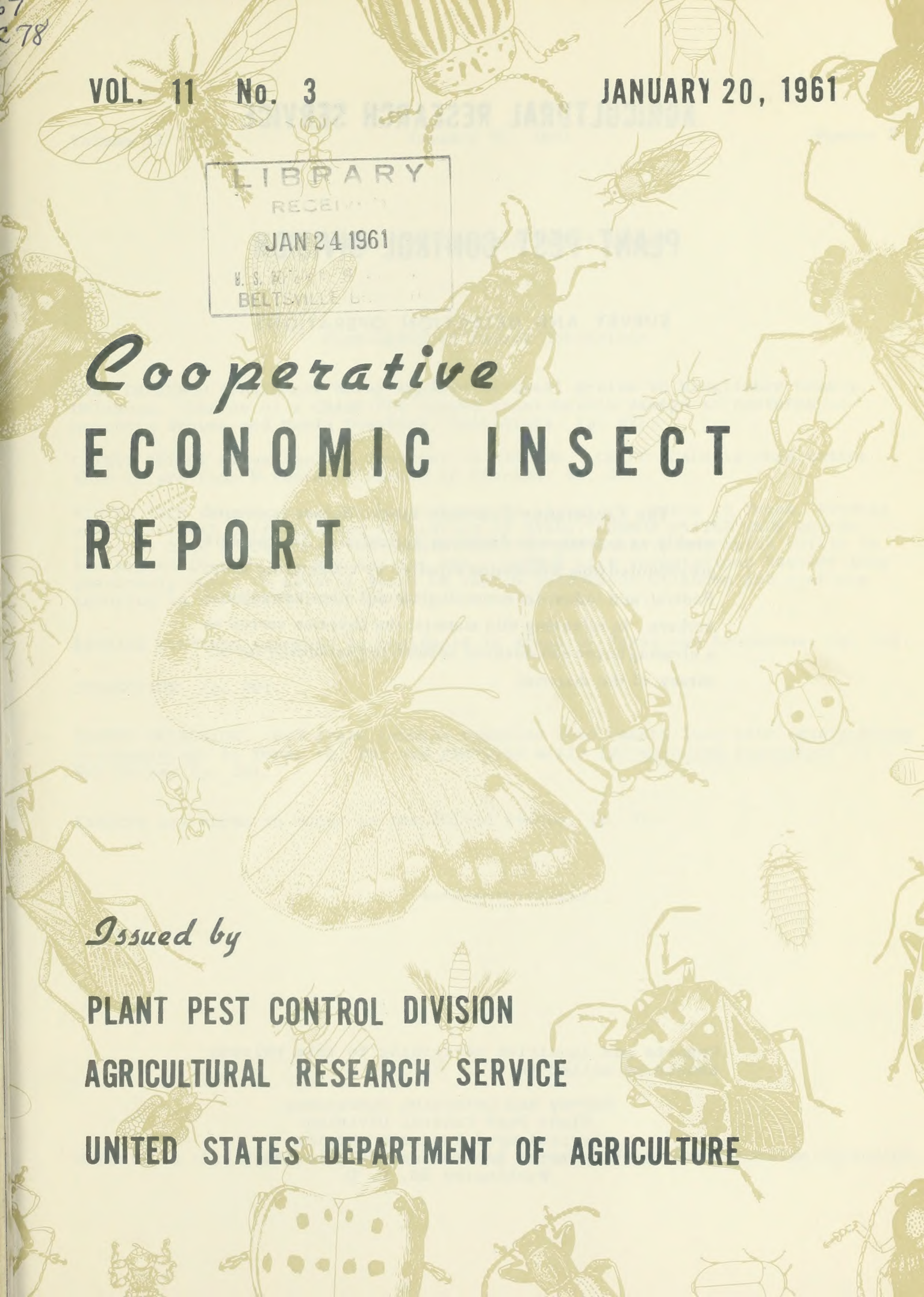

VOL. 11 No. 3 JANUARY 20, 1961

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Cooperative
ECONOMIC INSECT REPORT

Issued by

PLANT PEST CONTROL DIVISION
AGRICULTURAL RESEARCH SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

SURVEY AND DETECTION OPERATIONS

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearing house and does not assume responsibility for accuracy of the material.

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Survey and Detection Operations
Plant Pest Control Division
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Volume 11 January 20, 1961 Number 3

COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

Some GREENBUG treatments being applied to small grains in Kingfisher County, Oklahoma. Larvae of a CRANE FLY caused considerable damage to pastures in southern Sonoma and Marin Counties, California. (p. 27).

CITRUS INSECT situation and forecast in Florida. CHAFF SCALE is more common than in previous 9 years of record in Florida. (p. 28).

WINTER TICK causing considerable concern to livestock owners in Texas. Present number largest ever recorded in history of State. COMMON CATTLE GRUB counts continue high in Oklahoma and counts ran 8-48 per head in untreated cattle in San Miguel County, New Mexico. (p. 29). CATTLE LICE infestations heavier than previously noted in several years on cattle throughout Oklahoma and continue annoying in northern Utah. (p. 30).

EARWIGS continue annoying to residents in areas of Texas and Louisiana. (p. 30).

CORRECTION (p. 30).

INSECT DETECTION: New state records reported were canary lung mite (Sternostoma tracheacolum) in Texas (p. 29) and red-pine scale (Matsucoccus resinosae) in New Jersey (p. 28).

INSECTS not known to occur in the United States. (p. 31).

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Reports in this issue are for week ending January 13, unless otherwise indicated.

WEATHER BUREAU 30-DAY OUTLOOK

MID-JANUARY TO MID-FEBRUARY 1961

The Weather Bureau's 30-day outlook for the period mid-January to mid-February calls for below-normal temperatures over the southern half of the Nation except for near to above normal in California. Above-normal temperatures are predicted for the northwest quadrant of the country and for northern New England. In unspecified areas near-normal averages are anticipated. Precipitation is expected to exceed normal over the eastern third of the Nation, while subnormal amounts are indicated over the western half. In the intermediate area near-normal precipitation is in prospect.

Weather forecast given here is based on the official 30-day "Resume and Outlook," published twice a month by the Weather Bureau. You can subscribe through Superintendent of Documents, Washington 25, D. C. Price $4.80 a year, $2.40 a half year.

WEATHER OF THE WEEK ENDING JANUARY 16

An unusually mild week for the time of the year reduced the extent and depth of snow cover and thawed frozen ground as far north as Iowa and central areas. Precipitation, with the distribution similar to that of last week, was limited to the East, South and Pacific Northwest, while mostly dry sunny weather prevailed elsewhere. With rising temperatures in the western half of the country, the first half of the period and in the East the latter part, weekly averages ranged from as much as 10° to 25° above normal in the north central Interior, tapering off to normal or slightly below in most extreme eastern and southern areas east of the Rockies and in the Central Valley of California. Maximum temperatures, reaching their highest levels in central areas on the 12th and 13th, rose to 60° in the central Great Plains and middle Mississippi Valley and into the 50's at stations in the Canadian Border states from North Dakota to Michigan. In the latter state, minimum temperatures on the 13th remained above freezing. Minimum temperatures in the 20's were recorded in the San Joaquin Valley of California where the last 4 weeks have been relatively cold.

Only major storm of the week was responsible for nearly all precipitation recorded in the East and South as it moved slowly northeastward from Texas on the 12th to a position over the Ohio Valley and Middle Atlantic States at the end of the period. This storm was responsible for the third consecutive week of heavy rainfall in Louisiana and eastern half of Texas where lowland flooding again was rather widespread. The storm also produced an inch or more of beneficial rains in the Carolinas, Georgia and Florida. Part of this storm system gained strong intensity off the Atlantic coast from Virginia to southern New England on the 15th and 16th. Hurricane-force winds and high seas were reported off the New England coast. Moderate to heavy snow occurred from West Virginia to southern New England. Several inches of snow fell in the mountains of Maryland and West Virginia, 7 inches in the lower Susquehanna Valley of Pennsylvania, 9 inches in the lower Hudson Valley of New York State, 2 to 10 inches in western Massachusetts, and 10 to 15 inches in south central Massachusetts and northwestern Connecticut. Heavy rains in the Pacific Northwest caused some flooding in western Washington.

Snow depths in the western mountains showed little change during the week, but east of the Rockies, the cover has retreated to extreme northern areas at lower elevations. In lower Michigan the ground is now bare and in the Upper Peninsula a cover of 20 inches near Lake Superior at the beginning of the week was reduced to 8 inches by the end of the week. (Summary supplied by U. S. Weather Bureau).

CEREAL AND FORAGE INSECTS

GREENBUG (*Toxoptera graminum*) - OKLAHOMA - Some treatments of small grain reported in Hennessey area of Kingfisher County. No outbreaks or overall buildup noted in that area yet. Very light populations noted in wheat in localized areas of Ottawa County and common, but light (less than 7 per linear foot), in wheat in Mayes, Wagoner, Muskogee and Payne Counties. (Okla. Coop. Sur.).

ENGLISH GRAIN APHID (*Macrosiphum granarium*) - OKLAHOMA - Light numbers continued common in some fields of small grain in Kingfisher County and in southwest area. Present in very limited numbers in few fields checked in east central area. (Okla. Coop. Sur.).

A SUGARCANE BORER (*Chilo loftini*) - ARIZONA - Larvae found infesting base of sorghum stalks in Yuma County during October, 1960. (Ariz. Coop. Sur.).

SPOTTED ALFALFA APHID (*Therioaphis maculata*) - ARIZONA - Infestations generally low, with highest counts averaging 1 per sweep in Maricopa County alfalfa. (Ariz. Coop. Sur.).

PEA APHID (*Macrosiphum pisi*) - ARIZONA - Very light infestations averaging 10 per 25 sweeps in alfalfa in 10 Maricopa County fields. (Ariz. Coop. Sur.).

THREE-CORNERED ALFALFA HOPPER (*Spissistilus festinus*) - ARIZONA - Adults averaged 8-10 per 25 sweeps in Maricopa County alfalfa. (Ariz. Coop. Sur.).

LYGUS BUGS (*Lygus* spp.) - ARIZONA - Counts of 4-5 adults per 10 sweeps common in central area alfalfa. (Ariz. Coop. Sur.).

A BLACK FLEAHOPPER (*Spanogonicus albofasciatus*) - ARIZONA - Counts in central area alfalfa averaged 6-8 adults per 25 sweeps. (Ariz. Coop. Sur.).

A CRANE FLY (*Tipula* sp.) - CALIFORNIA - Causing considerable damage to pastureland and permanent pastures in southern Sonoma and Marin Counties. In Marin County, control measures have not been effective and treatment cost ran higher than revenue from the land. (Cal. Coop. Rpt.).

A GRASSHOPPER (*Melanoplus* sp., probably *devastator*) - CALIFORNIA - Populations averaging 10 per square yard infesting an area of 4-5 sections of land in Tehama County. Females contain partially developed eggs at this time, which is quite unusual. (Cal. Coop. Rpt.).

FRUIT INSECTS

Citrus Insect Situation in Florida - End of December 1960 - PURPLE SCALE (*Lepidosaphes beckii*) infested 68 percent of groves checked. Activity low in all districts and will remain low. A buildup resulting in moderate infestation observed in 6 percent of groves during December. FLORIDA RED SCALE (*Chrysomphalus aonidum*) infested 71 percent of groves. The December drop in activity has reduced populations to average levels in most districts. Further decrease is expected during January, but the districts mentioned below will remain in the high range. Highest activity in Bartow and Indian River districts. CITRUS RED MITE (*Panonychus citri*) infested 51 percent of groves. Activity and populations are below average at present and little change is expected during January. Moderately high activity present in Bartow and Ridge districts. CITRUS RUST MITE (*Phyllocoptruta oleivora*) infested 73 percent of groves. Although there has been an important drop in activity since mid-December in most districts, the trend in some districts is upward and will be erratic in January. Populations generally will continue above average. High activity is present in Ridge, west coast, Bartow, Brooksville and upper east coast districts. TEXAS CITRUS MITE (*Eutetranychus banksi*) is present in more groves than usual for time of year, 33 percent, but only 8 percent have moderate to heavy infestations.

CHAFF SCALE (*Parlatoria pergandii*) is more common than in previous 9 years of record. Infestations are present in 74 percent of groves, but none are heavy at this time. (Simanton, Thompson, Johnson (Citrus Exp. Sta., Lake Alfred)).

Citrus Insect Forecast in Florida - January through March, 1961 - FLORIDA RED SCALE infestations will decrease through February; then take a slight upward trend in late March. Populations will be below average. PURPLE SCALE will be at a low level of infestation throughout State. Repeated sulfur applications may cause increases. CITRUS RUST MITE populations will be above average during January, and near average in February. About 30 percent of groves will have numerous mites through March. CITRUS RED MITE populations expected to be in the low range through February; then increase. TEXAS CITRUS MITE population will remain near the moderate level recorded in 1959. A slight increase is expected in March. SIX-SPOTTED MITE (*Eotetranychus sexmaculatus*) infestations will be light through January, then build up rapidly in February. Some injurious populations will occur in March. APHIDS will appear in February and build up rapidly on tender foliage in March.

COTTONY-CUSHION SCALE (*Icerya purchasi*) - CALIFORNIA - Medium infestation on citrus in Chico, Butte County. (Cal. Coop. Rpt.).

ROSY APPLE APHID (*Anuraphis rosea*) - CALIFORNIA - Light population of adults occurring on pear trees in the Redwood Valley, Mendocino County. (Cal. Coop. Rpt.).

WHITE PEACH SCALE (*Pseudaulacaspis pentagona*) - TEXAS - Has been a real problem in peach orchard in Harris County. (Kroemer).

GRAPE ROOT BORER (*Vitacea polistiformis*) - DELAWARE - Larvae causing extensive root injury to one vineyard in Bridgeville, Sussex County, on November 14, 1960. Collected by L. P. Kelsey. (Burbutis).

TRUCK CROP INSECTS

GOLDEN NEMATODE (*Heterodera rostochiensis*) - NORTH DAKOTA - Cooperative Federal and State cyst survey conducted during fall of 1960 completed, with negative results. Total of 258 collections was submitted. *Heterodera weissi* was present in all collections and *H. punctata* was present in 20 collections. Det. by I. Granek. (N. D. Ins. Sur.).

GREEN PEACH APHID (*Myzus persicae*) - FLORIDA - Collected on potatoes in Homestead, Dade County, on January 9. This is first aphid observed this season on potatoes, although previously reported present. (Wolfenbarger).

SERPENTINE LEAF MINERS - FLORIDA - Infesting potatoes, tomatoes, beans and cowpeas in Homestead and vicinity, Dade County. (Wolfenbarger, Jan. 3 and 9). These are generally being held in check but there are reports of serious outbreaks. (Fla. Coop. Sur.).

GRANULATE CUTWORM (*Feltia subterranea*) - CALIFORNIA - Light infestation in yams occurring on the tubers and in the soil in Chino and Ontario, San Bernardino County. (Cal. Coop. Rpt.).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

RED-PINE SCALE (*Matsucoccus resinosae*) - NEW JERSEY - Found for first time in the State. Det. by C. C. Doane, H. Morrison and P. A. Godwin. Official identification made December 6, 1960. Delimiting operations conducted to December 20, 1960, establish the infestation in 125 acres of red pine forest plantings located on a watershed in Passaic County. Extensive and careful survey will be continued on the surrounding areas. Eradicative measures will be employed. (F. A. Soraci).

A BARK BEETLE (Pityophthorus sp., near carmeli) - CALIFORNIA - Heavy on Monterey pine on State College grounds in San Luis Obispo, San Luis Obispo County. (Cal. Coop. Rpt.).

AN APHID (Prociphilus sp.) - CALIFORNIA - Heavy populations of adults on roots of ash in San Jose, Santa Clara County. (Cal. Coop. Rpt.).

A PHYLLOXERA (Phylloxera sp., probably salicola) - CALIFORNIA - Medium populations on willow in San Jose, Santa Clara County. (Cal. Coop. Rpt.).

AN APHID (Neothomasia populicola) - CALIFORNIA - Medium infestation of nymphs and adults on poplar leaves in Calipatria area, Imperial County. (Cal. Coop. Rpt.).

A WHITEFLY (Aleuroplatus coronatus) - CALIFORNIA - Medium infestation on coast live oak in Elder Creek area, Glenn County. (Cal. Coop. Rpt., Jan. 6).

GROUND MEALYBUG (Rhizoecus falcifer) - CALIFORNIA - Heavy infestation on birch roots in Stockton, San Joaquin County. (Cal. Coop. Rpt.).

CALIFORNIA RED SCALE (Aonidiella aurantii) - CALIFORNIA - Heavy populations on sego palm on the college campus in Marysville, Yuba County. (Cal. Coop. Rpt.).

OLIVE SCALE (Parlatoria oleae) - CALIFORNIA - Heavy infestation on privet in Chico, Butte County. (Cal. Coop. Rpt.).

A WHITEFLY (Aleuroparadoxus iridescens) - CALIFORNIA - Medium infestation on cotoneaster in Chico, Butte County. (Cal. Coop. Rpt.).

INSECTS AFFECTING MAN AND ANIMALS

CANARY LUNG MITE (Sternostoma tracheacolum) - TEXAS - Recorded for first time in the State in Harris County. This species is of considerable importance in commercial canary industry. (Price, McDaniel).

WINTER TICK (Dermacentor albipictus) - TEXAS - Moderate to heavy infestations on cattle and horses in Johnson County, causing considerable concern over large numbers being found on and off animals. (Mann). Largest number present over entire livestock areas of State in history. Livestock people considerably concerned. (Graham).

BROWN DOG TICK (Rhipicephalus sanguineus) - OKLAHOMA - Causing annoyance in some homes where pets are allowed indoors in Logan, Payne and Noble Counties. (Okla. Coop. Sur.). MARYLAND - Infesting homes and dogs at several localities in central and southern sections. (U. Md., Ent. Dept.).

COMMON CATTLE GRUB (Hypoderma lineatum) - NEW MEXICO - Counts ran from 8-48 grubs per head on untreated cattle checked in San Miguel County. Fair to good control was achieved with chemicals applied earlier in the season. (N. M. Coop. Rpt.). OKLAHOMA - Counts averaged 23 per head on 40 yearling steers in western Payne County and averaged 21 per head on 12 yearling steers in Harper County. Counts ranged 6-25 per head on 4-H Club show calves checked in Custer County. Heavy counts common on cattle in all areas of State. (Okla. Coop. Sur.).

STABLE FLY (Stomoxys calcitrans) - OKLAHOMA - Unusually warm weather has caused a flush in populations resulting in some annoyance to livestock in Payne County. Counts taken on milking animals average 1-2 per cow. (Okla. Coop. Sur.).

CATTLE LICE - UTAH - Continue annoying to cattle in northern areas of State. More than 6,000 cattle treated for lice control in Duchesne County; 3,000 dipped. (Knowlton, Smith). OKLAHOMA - Infestations heavier throughout State this winter than have been noted on cattle during past several years. (Okla. Coop. Sur.).

HOG LOUSE (*Haematopinus suis*) - OKLAHOMA - Common on hogs in several areas of State. (Okla. Coop. Sur.).

STORED-PRODUCT INSECTS

RED FLOUR BEETLE (*Tribolium castaneum*) - NEW MEXICO - Adults abundant in stored grain throughout southern counties, but not very active. (N. M. Coop. Rpt.).

INDIAN-MEAL MOTH (*Plodia interpunctella*) - NEW MEXICO - Larvae abundant in old sacks and grain storage bins checked in Roosevelt and Dona Ana Counties. (N. M. Coop. Rpt.).

YELLOW MEALWORM (*Tenebrio molitor*) - NEW MEXICO - Larvae abundant in old sacks and grain storage bins checked in Roosevelt and Dona Ana Counties. (N. M. Coop. Rpt.).

AN APHID (*Aphis tulipae*) - UTAH - Abundant in tulip bulbs at Provo, Utah County. (Knowlton, Taylor; Jan. 9).

MISCELLANEOUS INSECTS

COCKROACHES - OKLAHOMA - Causing a nuisance in some homes in Cleveland County. (Okla. Coop. Sur.). NEW MEXICO - *Blatta orientalis*, *Blattella germanica* and *Periplaneta americana* populations light to heavy in a number of business establishments in Roosevelt County. (N. M. Coop. Rpt.).

EARWIGS - LOUISIANA - Reported still invading homes in southern area. (Spink). TEXAS - Continued complaints of large numbers invading homes in Bryan-College Station area, Brazos County, and in areas of Houston, Harris County. Species probably *Labidura riparia*. (Thomas).

A PSYCHODID - OKLAHOMA - Larvae appearing in high enough numbers to block filters in sewage disposal plants at Stillwater and Tulsa. (Okla. Coop. Sur.).

CLUSTER FLY (*Pollenia rudis*) - UTAH - Annoying in a home at Perry, Box Elder County. (Knowlton).

FLIES - NEW MEXICO - Adults of *Musca* sp. and blow flies hibernating in storage buildings becoming active on warm days in southern counties. (N. M. Coop. Rpt.).

STINK BUGS - NEW MEXICO - Large numbers of hibernating adults found in storage buildings in Roosevelt County. (N. M. Coop. Rpt.).

A SYRPHID (*Monoceromyia floridensis*) - FLORIDA - Taken in wet trap in calamondin tree at Miami, Dade County, on November 9, 1960, by J. N. Todd. This is a rarely collected species, and those that have been collected have been taken in fruit fly traps. (Fla. Coop. Sur.).

CORRECTION

CEIR 10(52):1146 - TICKS - TEXAS - Delete note of *Dermacentor* sp. from coyote in Bee County.

INSECTS NOT KNOWN TO OCCUR IN THE UNITED STATES

WHEAT STEM WEEVIL (Hyperodes bonariensis Kuschel)

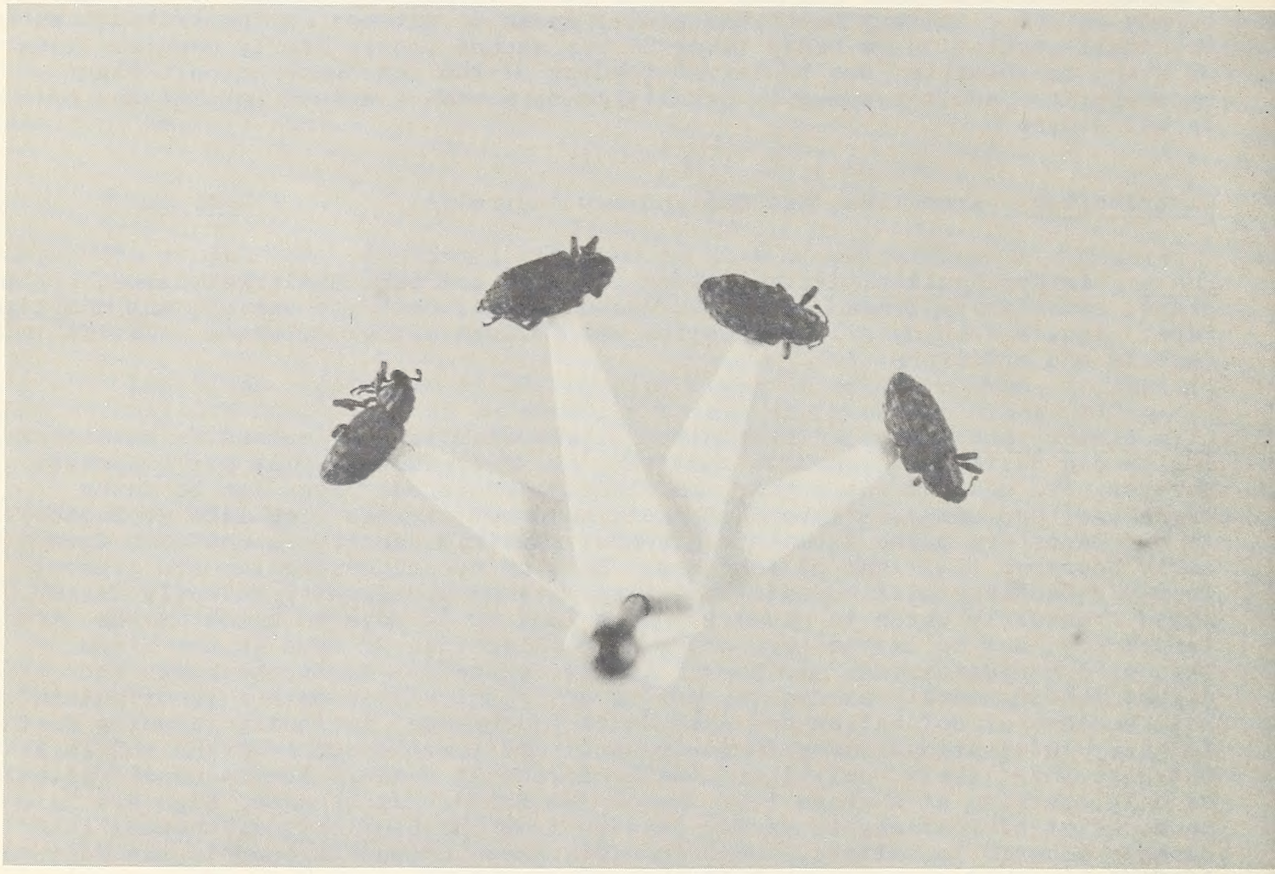
Economic Importance: This curculionid, native of Argentina, is a very serious pest of ryegrasses in New Zealand. It was first recorded in that country in 1927. In addition to being a pest of ryegrass, it is also a pest of barley and wheat. Infestations varied from 3-4 percent in wheat in New Zealand during the summers of 1936-37 and 1937-38. During the three-year period, ending May 1958, stands of ryegrass were generally infested in the Canterbury area of New Zealand, and in all districts there were instances of complete destruction of first- and second-year stands, sometimes more or less uniformly, but usually in patches of variable size. Larval damage is most severe; only one larva can cause complete death of a young tiller. When seed heads are produced, larval feeding results in a "white head" that does not seed. Roots are not damaged as in white grub feeding, however. Adult feeding results in a silvery appearance to the leaves, mainly on the tips, but sometimes causes spots or stripes on the leaves. When the adult population is heavy (over 20 per square foot), nearly complete loss of stand is possible, due to larval feeding of the next generation. Plant recovery from adult feeding is usually good, however, unless complicated by larval damage.

Distribution: Argentina, New Zealand and Australia.

Hosts: In New Zealand, larvae feed on Italian and perennial ryegrasses, orchardgrass, sweet vernalgrass, Chewings fescue, wheat, oats and barley, and sometimes rape. Adults feed on all grasses (except Yorkshire fog), clovers, alfalfa, cereals and crucifers.

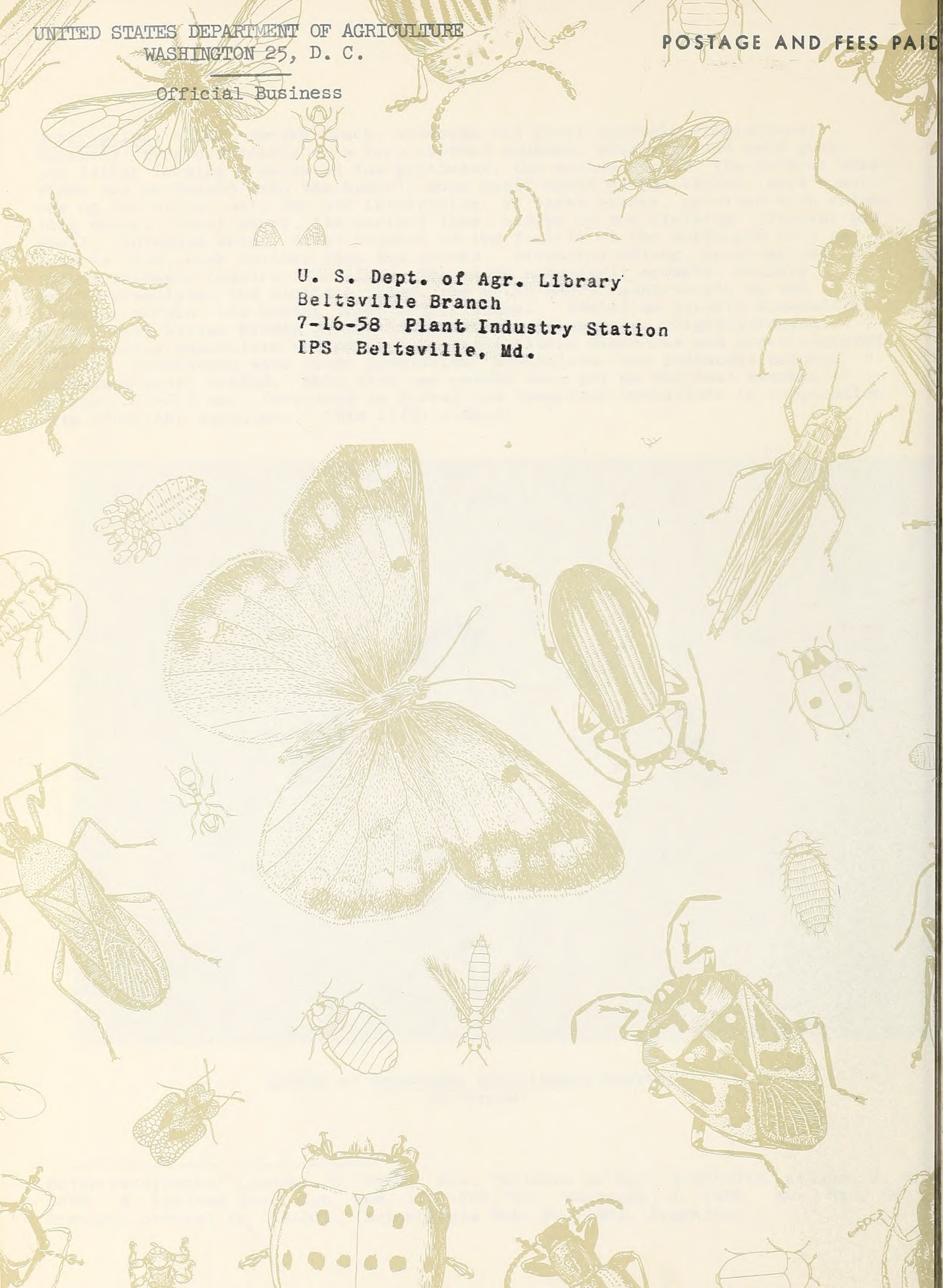
Life History and Habits: The biology as reported in New Zealand is as follows: Adults can be found throughout the year; no true overwintering was observed. However, two generations a year are clearly indicated. Eggs can be found throughout September, October and early November; larvae from late September to mid-December; pupae from late November till mid-January; and adults from early December till last of February. Eggs of second generation are present from mid-December till end of March; larvae from mid-January to early May; pupae from early March to mid-May. Eggs took 12-24 days to hatch in the laboratory, but no larvae were observed earlier than 23 days in the field. The pupal period varied 7-15 days. Adults are active during both day and night, feeding mainly at night. Adults are difficult to detect in or on the soil because of coloration and methods of camouflage, including feigning death. In heavy infestations, over 20 per square foot are present in or on the soil, but more than likely, only 1 or 2 will be readily found. Adults usually feed on only one side of a grass leaf, hence the silvery appearance. Eggs are laid in a pocket of leaf sheath tissue (always from the back of leaf sheaths), closely adhered to tillers. These pockets never extend through to the next leaf or stem and no eggs are laid between the sheath and stem. Two eggs (sometimes 1 or 3) are laid in each pocket, which is no more than 2 inches from the ground. Newly hatched larvae tunnel in leaf sheaths, always downwards. Afterwards, however, no consistent larval behavior pattern was observed. In the presence of seed heads, larvae entered near any of the nodes from second to seventh, and though initially they moved upwards, they usually moved down again when full-fed. Tunnelling of any size caused "white heads." When mature, larvae cut holes in sides of tillers or straws and dropped to the ground to pupate.

Description: ADULT - Brown-black; antennae and tarsi ferrugino-testaceous; entirely covered dorsally with very crowded squamae, yellowish and ashy gray; the latter forming 3 bands on the prothorax, the median narrow, the lateral ones wider and prolonged onto the humeri, some small spots on the elytra, more numerous on the sides; only the odd interstriae, at least before, provided with rather long setae. Snout short, its carinae fine, hidden by the clothing. Frontal pit small. Antennae short, first segment of the funicle of the duplicate only as long as wide, much thicker than the second. Prothorax oblong, narrower and rather strongly constricted before, the sides moderately arcuate, densely puncto-granulate, the clothing dense, the setae short; subtruncate on the anterior margin, its ocular lobes nearly absent. Scutellum densely squamulate. Elytra with striae hidden by the clothing, the interstriae slightly convex. Legs densely squamulate and pubescent; front tibiae bisinuous and granulo-grated inside. Underneath with dense punctation, squamulate, and pubescent before; pubescent only, behind. Male with one rather deep pit on the anal segment. Length, 3.5-3.8 mm. (Prepared in Survey and Detection Operations in cooperation with other ARS agencies). CEIR 11(3):1-20-61.



Adults of Hyperodes bonariensis Kuschel
(Enlarged)

Major references: Kuschel, G. 1955. Rev. Chileana de Ent. 4:261-312. Kelsey, J. M. 1958. N. Zealand Jour. Agr. Res. 1(5):790-795. Hustache, A. 1926. Mus. Nac. de Historia Natural An. 34:205. (Entomologia Pub. No. 140), Argentina.



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